

Ray Labbe & Sons, Inc.
Sagadahoc County
Bowdoin, Maine
A-527-71-G-R

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**Departmental
Findings of Fact and Order
Air Emission License**

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Ray Labbe & Sons, Inc. (Labbe), located in Bowdoin, Maine has applied to renew their Air Emission License, permitting the operation of emission sources associated with their Bowdoin, Maine mineral processing facility

B. Emission Equipment

Labbe is authorized to operate the following equipment:

Rock Crushers:

| <u>Designation</u> | <u>Power Source</u> | <u>Process Rate (tons/hr)</u> | <u>Control Device</u> | <u>Date of Manufacture</u> |
|---------------------------|----------------------------|--|------------------------------|---------------------------------------|
| Primary LB-121 | Diesel | 50 | Spray Nozzles | Pre-1973 |
| Cone LB-124 | Diesel Generator | 100 | Spray Nozzles | Pre-1973 |
| Portable LB-173 | Diesel Generator | 200 | Spray Nozzles | Pre-1983 |
| Cone LB-174 | Electric | 150 | Spray Nozzles | 1977 |

Associated Diesel Units

| <u>Equipment</u> | <u>Fuel Type, % Sulfur</u> | <u>Maximum Firing Rate</u> | <u>Power Output</u> |
|-------------------------|-----------------------------------|-----------------------------------|----------------------------|
| LB-121 | Diesel Fuel, 0.05% | 5.4 gal/hr | 75 kW |
| LB-128 | Diesel Fuel, 0.05% | 13.31 gal/hr | 200 kW |
| LB-172 | Diesel Fuel, 0.05% | 29.92 gal/hr | 400 kW |

C. Application Classification

The application for Labbe does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Rock Crushing Units

Labbe operates a jaw crusher, designated Primary Crusher LB-121, a cone crusher designated Cone Crusher LB-124, a portable jaw crusher designated Portable Crusher LB-173 and a second cone crusher, designated Cone Crusher LB-174 at their Bowdoin gravel pit.

Primary Crusher LB-121 and Cone LB-124 have maximum through-put ratings of 50 and 100 tons/hr, respectively and were each manufactured prior to 1973. Both of the above crushers were manufactured prior to the applicability date of EPA's NSPS Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants and are therefore not subject to EPA's NSPS Subpart OOO.

Portable Crusher LB-173 and Cone Crusher LB-174 have maximum through-put ratings of 200 and 150 tons/hr, respectively and were each manufactured prior to 1983. The Department determined that due to the age of the crushers and the self-destructive nature of crusher operation, it is likely that the crushers went through a reconstruction or modification after August 1983 and are therefore subject to EPA's NSPS Subpart OOO.

As a requirement of NSPS Subpart OOO, it is necessary that an initial performance test be performed on the applicable crushers. This consists of a certified Method 9 observation. Labbe conducted Method 9 observation testing on both crushers on September 12, 2005 and successfully demonstrated the capability to meet the standards established in the facility's air emission license. A copy of the compliance report showing compliance with the facility's air emission license was submitted to the Department by Labbe and is on file at the Department.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, Labbe shall maintain and operate water sprays on the rock crushers at the Bowdoin facility in such a manner as to control visible emissions to no greater than 10% opacity on a 6-minute block average basis.

C. Diesel Units

Labbe currently operates three diesel units, designated Diesel LB-121, Diesel LB-128 and Diesel LB-172 at their Bowdoin gravel pit as power sources for their crusher units.

Diesel Power Unit LB-121 was manufactured in the 1950s, has a maximum design firing rate of 5.4 gallons per hour (gal/hr) and directly drives Primary Crusher LB-121. Diesel Generator LB-128 was manufactured in 1999, has a maximum design firing rate of 13.31 gal/hr and is utilized as the power source for Cone Crusher LB-124. Diesel Generator LB-172 is manufactured by Caterpillar, has a maximum design firing rate of 29.92 gal/hr and is utilized as the primary power source for Portable Crusher LB-173.

Labbe's previous license restricted the facility to an annual fuel oil limit for the three diesel units combined to no greater than 10,000 gal/yr of diesel fuel oil with a sulfur content of no greater than 0.05% sulfur by weight based on a twelve-month rolling total. Labbe has proposed an increase of this limit to 30,000 gal/year of diesel fuel oil on a calendar year basis. The Department has determined that an increase in the fuel limit would require an application of BACT. In this case BACT is the requirement of fuel oil with a reduced sulfur content which is already met through the requirement of the use of diesel fuel with a sulfur content of no greater than 05% sulfur by weight.

Labbe shall maintain a record of fuel use for the diesel units, which shall include fuel purchase receipts indicating the quantity and date of fuel purchased and supplier certification indicating the sulfur content of the purchased fuel. The fuel record shall be maintained on a monthly as well as on a calendar year basis.

A summary of the BACT/BPT analysis for the diesel units are as follows

- a. BACT for emissions of SO₂ is a diesel fuel oil sulfur content not to exceed 0.05% sulfur by weight;
- b. BPT for PM for units LB-121 and LB-128 is 0.31 lb/MMBtu. PM₁₀ emission limits for units LB-121 and LB-128 are based on PM limits;
- c. BPT for PM for diesel unit LB-172 is 0.12 lb/MMBtu. PM₁₀ emission limit for diesel unit LB-172 is based on PM limits;
- d. SO₂ emissions calculations for the diesel units LB-121 and LB-128 are based on AP-42 data dated 10/96 for diesel engines rated less than 600 horsepower;
- e. NO_x, CO and VOC emission limits are based on AP-42 data dated 10/96;
- f. Visible emissions from each diesel unit shall not exceed 20% opacity on a 6-minute block average except, for no more than two 6-minute block averages in a 3-hour period.

D. Annual Emission Restrictions

Labbe shall be restricted to the following annual emissions:

- Labbe shall be limited to firing no greater than 30,000 gal/yr of diesel fuel, with a sulfur content of no greater than 0.05% sulfur by weight based on a calendar year.

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

| <u>Pollutant</u> | <u>Tons/Year</u> |
|-------------------------|-------------------------|
| PM | 0.6 |
| PM ₁₀ | 0.6 |
| SO ₂ | 0.1 |
| NO _x | 9.1 |
| CO | 2.0 |
| VOC | 0.7 |

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a non major source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. An air quality analysis is not required for this amendment.

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ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

Department hereby grants Air Emission License A-527-71-G-R, subject to the following conditions:

The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.

- (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.

- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

(16) Rock Crushers

- A. Labbe shall maintain spray nozzles on all the facility's rock crushers and operate the spray nozzles as necessary so as not to exceed visible emissions limits. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6-minute block average basis. [MEDEP Chapter 101]
- B. Labbe shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- C. Labbe shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the facility's rock crushers. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- D. Portable Crusher LB-173 and Cone Crusher LB-174 are subject to 40 CFR Part 60 Subparts A and OOO and Labbe shall comply with the notification and record keeping requirements of 40 CFR Part 60.676 and Part 60.7, except for Section (a)(2) of 60.7 per Subpart OOO, §60.676(h). [40 CFR 60, Subpart OOO]

(17) Diesel Units

- A. Labbe shall be restricted to firing no more than 30,000 gal/yr of diesel fuel oil with a sulfur content of no greater than 0.05% sulfur by weight in the diesel units based on a calendar year.
- B. In order to demonstrate compliance with the above fuel restrictions, Labbe shall maintain a record of fuel use for the diesel units, which shall include fuel purchase receipts indicating the date and quantity of fuel purchases and supplier certification indicating the sulfur content of the purchased fuel. The fuel record shall be maintained on a monthly as well as on a calendar year basis. [MEDEP Chapter 115, BPT]

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C. Emissions from the diesel units shall be limited to the following:

| Equipment | | PM | PM₁₀ | SO₂ | NO_x | CO | VOC |
|------------------|----------|-----------|------------------------|-----------------------|-----------------------|-----------|------------|
| LB-121 | lb/hr | 0.23 | 0.23 | 0.04 | 3.3 | 0.7 | 0.3 |
| LB-128 | lb/hr | 0.6 | 0.6 | 0.1 | 8.1 | 1.7 | 0.6 |
| LB-172 | lb/MMBtu | 0.12 | - | - | - | - | - |
| | lb/hr | 0.5 | 0.5 | 0.2 | 17.2 | 3.7 | 1.4 |

[MEDEP Chapter 115]

D. Visible emissions from each diesel stack shall not exceed 20% opacity on a 6-minute block average except, for no more than two 6-minute block averages in a 3-hour period. [MEDEP Chapter 101]

- (18) Labbe shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115]
- (19) Labbe shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 MRSA §605-C).
- (20) Equipment Relocation [MEDEP Chapter 115, BPT]

A. Labbe shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. Written notice may be sent by mail, facsimile (fax), or e-mail. Notification sent by mail shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Equipment relocation notification can also be done on-line with e-notice at www.maine.gov/dep/air/compliance/forms/relocation.

The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.

B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

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- (21) Labbe shall pay the annual air emission license fee within 30 days of December 31 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the signature above.

Date of initial receipt of application: **December 30, 2005**

Date of application acceptance: **January 12, 2006**

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality